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SCIENCE

NEW YORK, SEPTEMBER 16, 1892.

DANGER FROM THE POPULAR MISUSE OF QUININE.

BY W. THORNTON PARKER, M.D

A RECENT editorial in the *Medical News* of April 2, 1892, concerning deaths from cocaine, may well be noticed in connection with the investigation of dangers from the popular misuse of quinine. "I have never seen it," *ergo* "No man's experience, however wide, can cover all the possibilities of disease and accident. It may be well and wise for one to say, 'I have not seen it,' when the possibility or likelihood of this or that pathologic or toxic accident is under discussion; but it is never wise and never well because of the perhaps limitation of one's own experience to deny the reality of occurrences vouched for by competent observers, and not in themselves incredible."

A recent item in one of the daily journals has prompted me to say a word against the misuse of the popular remedy known as quinine. The item referred to states that a sea-captain, sailing his craft too near a sunken ledge, was warned to give the dangerous quarter a wide berth. He replied, by yelling out at his adviser, "You go straight to hell; I am sailing this craft where I — please." The vessel was wrecked, and the insurance money refused on the ground that the captain wilfully destroyed his vessel. This the defence emphatically denied. In explanation of his extraordinary language, the captain stated that he had been suffering from malaria, and had taken large doses of quinine for relief, and had become so much "influenced" by its action that really he did not know what he was saying or doing.

Few, if any medicines, enter so largely and generally into popular use as quinine. Throughout the world we find it almost everywhere for sale; it can be purchased in any quantity by anybody, and used as the purchaser may think best, in larger or smaller doses, at intervals, or continually. Few seem to understand its poisonous action, or even suspect that its continual use can result in any special injury to the system. It is prescribed by all sorts and conditions of men, women, and children. Ruse, in his excellent text-book of medical jurisprudence, defines a poison as "a substance which, when introduced into the body by swallowing or by any other method, occasions disease or death; and this as an ordinary result in a state of health, and not by a mechanical action. It must be as an ordinary result; a substance, for example, which affects one person injuriously through idiosyncrasy, is not to be called poison. Again it must be *in the healthy system*, as is well known, many diseases render the system extremely susceptible to impressions by external agents, e. g., in gastritis, the blandest substance, even water, may excite vomiting."

The action of the malarial poison upon the system is of such a nature that many would claim that any abnormal nervous impression would be more likely to have its origin in the malarial poison than in the quinine, which is given with a view to neutralizing that poison. We know of so many diseases following the inception of the malarial germs that any attack upon quinine, as a poisonous remedy, may reasonably expect prompt resentment. Ringer states, that "large doses produce severe frontal headache with dull, heavy, tensive, and sometimes agonizing pains. While these symptoms last, and, indeed, generally before they appear, the face is flushed, the eyes suffused, and the expression is dull and stupid. Even small doses in persons very susceptible to the action, of this medicine will produce some of the foregoing symptoms, especially the headache and mental disturbance. Many of these symptoms are, no doubt, due to the action of quinia on the

brain. In toxic doses it excites convulsions. Chirone and Cure find that the removal of the motor centres of the brain prevents these convulsions; and, if the central hemisphere is removed on one side, the convulsions are unilateral. Albertoni, on the other hand, finds that quinia will induce convulsions when the central hemisphere or the cortical motor centres are removed." Dr. Bartholow states, that "In full medicinal doses, as the quinia accumulates in the brain, a sense of fullness in the head, constriction of the forehead, *tinnitus aurium*, more or less giddiness, even decided vertigo, may be produced. In actually toxic doses all of the above symptoms have been intensified. There are intense headache with constriction of the forehead, dimness of vision, or complete blindness, deafness, delirium, or coma, dilated pupils, weak, fluttering pulse, irregular and shallow respiration, convulsions, and finally collapse and death." Dr. Wood states, that "The minimum fatal dose of quinine is not known, but it must be large, and probably varies very much." Brown-Sequard states, that "In epileptics the attacks are rendered decidedly more frequent by the cinchona alkaloids." Dr. Wood is of the opinion, also, that "In large doses quinia, without doubt, abolishes the functions of the cerebrum."

From the foregoing we have evidence to demonstrate that quinia is too dangerous a remedy to be prescribed recklessly by medical men, and that its popular use by people ignorant of its action should be condemned and, if possible, prevented. In our own practice we have known of four cases where moderate doses continued even for two or three days would produce serious cerebral disturbance amounting to almost homicidal mania. There are very many cases in every community where the use of quinine will affect the nervous system of patients in a serious manner. One patient, after using ten grains, did not know whether it was morning or evening, and was bewildered in finding his way home. Another complained to me that he could not take quinine without feeling cross and out of sorts for a week afterwards. Still another, a very peaceful man naturally, stated that the use of quinine for a day or so made him quarrelsome and pugilistic, and he feared that under its influence he might commit some act which might bring him into serious trouble. Supposing that a lawyer should offer in defence of his client the statement that, acting under the advice of his physician, the patient had been taking large doses of quinine for several days, and in a paroxysm of rage, while under the influence of the drug, he had committed homicide, would this man in equity be responsible for his deed? That quinine is a dangerous drug with many there can be no doubt, that it is universally dangerous there may be some question. It seems to me but just, under the circumstances, that it should be rated as a poison. The study of the action of quinine, from a medico-legal standpoint, is one, therefore, not without interest.

POPULAR ERRORS ABOUT WILD ANIMALS.

BY THEODORE B. COMSTOCK.

IN the issue of the *Popular Science Monthly* for September, 1892, at page 719, is the following item under "Notes":—

"A novel view of the puma, or panther, as it is commonly called, is taken by Mr. W. H. Hudson, in his '*Naturalist in La Plata*,' who insists that it never attacks men except in self-defence. In the pampas, where it is common, the *gaucho* confidently sleeps on the ground, although he knows that pumas are close by; and it is said that a child may sleep on the plain unprotected in equal security."

There are many popular notions concerning the danger from wild animals which everyone who has travelled out of the beaten